

4 decades of Belgian marine monitoring: uplifting historical data to today's needs – 4DEMON

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Within the last four decades, the Belgian scientific community has built up considerable expertise in marine sciences. Numerous research actions, programs and monitoring campaigns have resulted in a valuable set of scientific data and important publications about the Belgian Continental Shelf (BCS). Although these data are essential for understanding long-term changes in the quality of the marine environment, many valuable, historic data still remain inaccessible to the larger scientific community, being only available on paper across various institutions. In addition, most data need to be thoroughly quality-controlled and intercalibrated to achieve comparability with recent data.

Within the 4DEMON project, the focus lies on centralising, integrating and valorising data on contamination levels, eutrophication and ocean acidification for assessing environmental change on the BCS stretching back over a period of 4 decades. The project is funded in the frame of the research program Belgian Research Action through Interdisciplinary Networks (BRAIN-be, PPS Science Policy) in the axis covering scientific heritage. The addition of recent data sources, like continuous underway data (e.g. salinity, temperature, pH, nutrients and chlorophyll) and remote sensing chlorophyll a and turbidity, supplements the historic data sets and aids the data interpretation as they have a much higher spatial and temporal resolution.

The resulting quality-controlled data sets from 1970 until today will be used to assess long-term change in the BCS. The data will be securely archived and integrated in the existing repositories at the BMDC and VLIZ and publicly disseminated via the project website.

References

www.4demon.be